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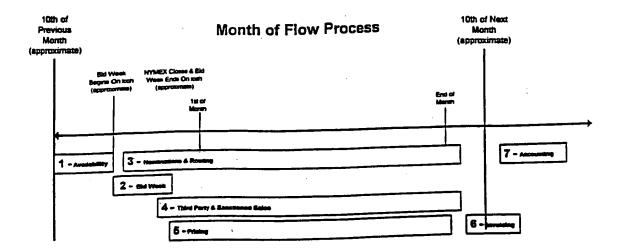


FIG. 1

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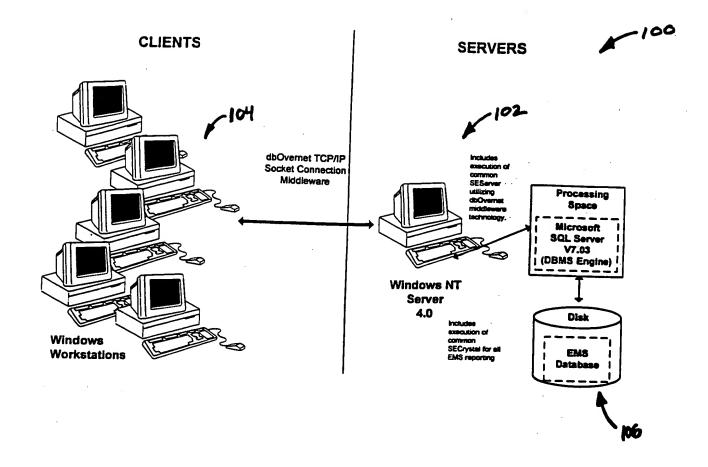


FIG. 2

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### Companies Subject Area (ERD)

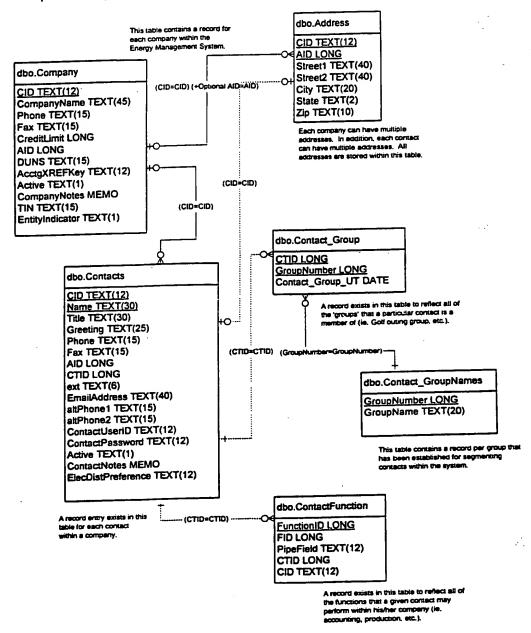


FIG. 3A

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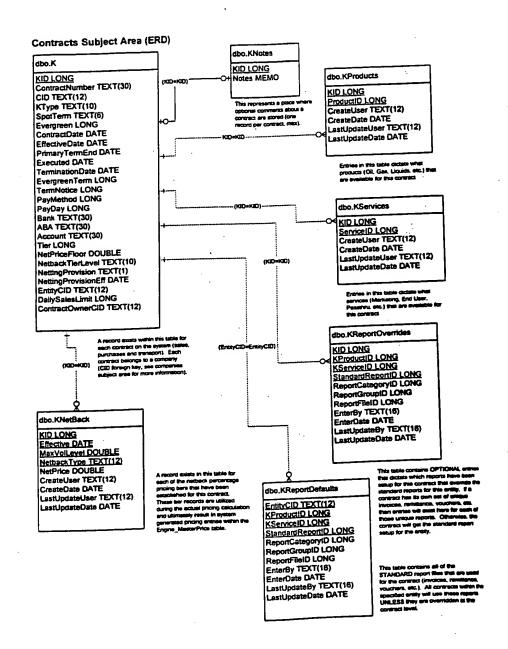


FIG. 3B

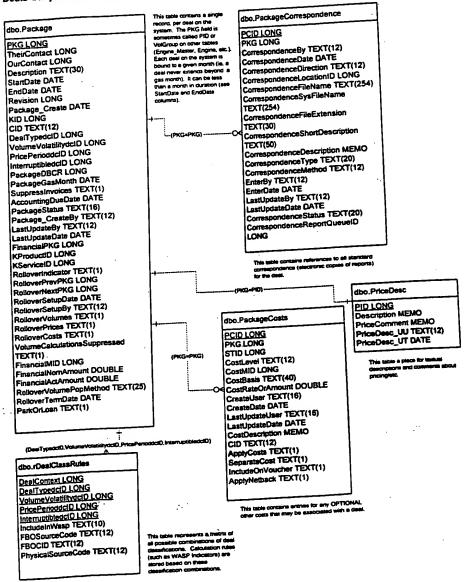
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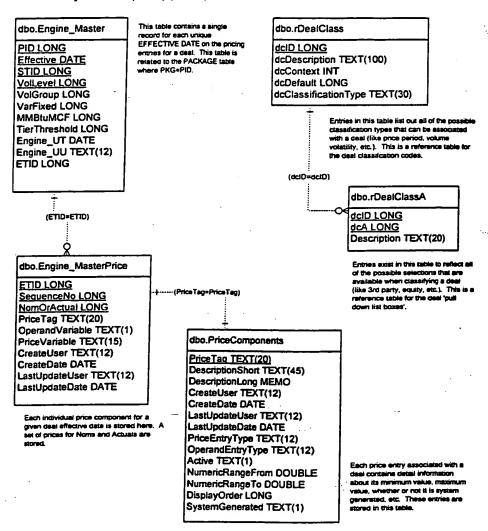


FIG. 3D

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# Gas Inventory Subject Area (ERD) (1 of 2)

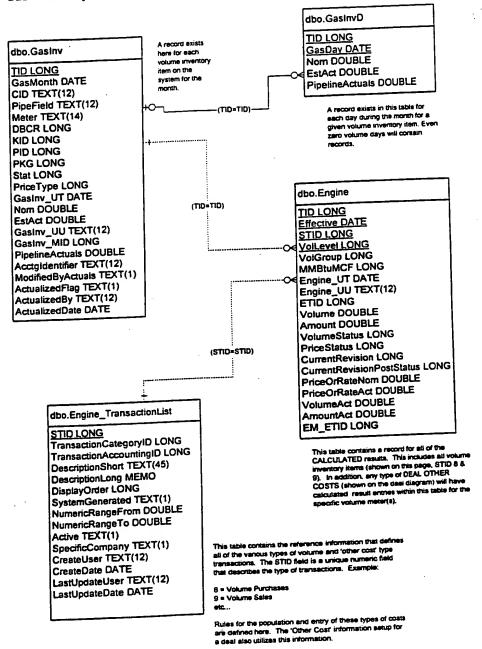


FIG. 3E

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### Gas Inventory Subject Area (ERD) (2 of 2)

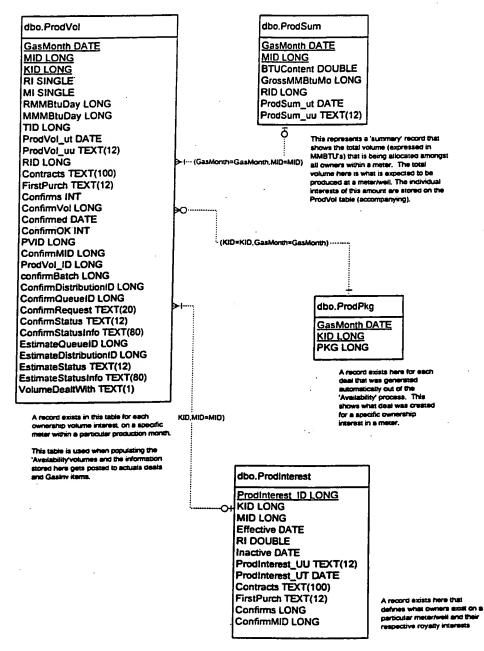


FIG. 3F

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# Operational Subject Area - 1 f4 (ERD)

### dbo.PrinterDef

PrinterNumber LONG
DisplayName TEXT(80)
ServerPrinterName TEXT(80)
InternalPrinter TEXT(1)

All printers defined in the system are stored in this table.

### dbo.ExceptionCategories

ExceptionType TEXT(12)
ExceptionNo LONG
ExceptionShort TEXT(45)
ExceptionLong MEMO
CreateUser TEXT(12)
CreateDate DATE
LastUpdateUser TEXT(12)
LastUpdateDate DATE
ExceptionOrder LONG

This table contains record entries for all of the possible exception reason categories defined within the system. These reasons are based on the type of exception that occurs ('Dear', 'Pricing', etc.).

(ExceptionType=ExceptionType, ExceptionNo=ExceptionNo)

dbo.ApplicationMessages

ApplicationMessageID LONG
ApplicationMessageDate DATE
ApplicationMessageText TEXT(255)

This table contains application messages that normally only print to the server console (for example when a calculation is running the messages are written here.

#### dbo.LogTable

LogEntry LONG LogDateTime DATE LogInfo TEXT(254) This table is used primarily for debugging purposes and is not utilized byany screen or reporting process.

#### dbo.ExceptionList

ExceptionListID LONG
ExceptionType TEXT(12)
ExceptionKey LONG
ExceptionDate DATE
ExceptionSequence LONG
ExceptionEvent TEXT(45)
ExceptionNo LONG
ExceptionNo LONG
ExceptionBy TEXT(12)
ExceptionComments MEMO
CreateUser TEXT(12)
CreateDate DATE
LastUpdateUser TEXT(12)
LastUpdateDate DATE

This table contains the ectual exception event entries. The Exceptionity and sequence columns associate the exception to the entity based on type (e. PKGID would be the key for ExceptionType = "DEAL").

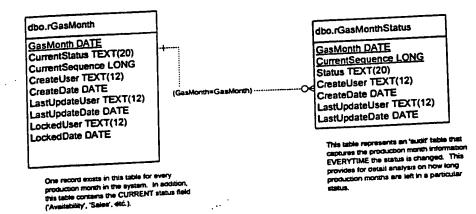


FIG. 3G

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# Operational Subject Area - 2 of 4 (ERD)

dbo.SEProcessingCodeTypes

CodeType TEXT(10)
ShortDescription TEXT(50)
Description MEMO
UserConfigurable TEXT(1)

EnterBy TEXT(16) EnterDate DATE LastUpdateBy TEXT(16) LastUpdateDate DATE

This table contains a processing code "type", field for all of the vanous reference fields on the database. For example, a CodeType of "CONTRPROS" represents the contract products type. All SEProcessingCodes with this type represent the available contract products.

dbo.SEProcessingCodes

ProcessingCodeID LONG
CodeType TEXT(10)
ShortDescription TEXT(50)
Description MEMO
Required TEXT(1)
TypeLimit LONG
ValueMask TEXT(254)
DisplayOrder LONG
EnterBy TEXT(16)
EnterDate DATE
LastUpdateBy TEXT(16)
LastUpdateDate DATE
Description1 MEMO

This table contains a record for each unique processing code on the system. For example a processingcoded=113 and a CodeType="CoNTRPROS" has a short description of 'Gas'. This represents the gas contract product costs.

dbo.SELocations

LocationID LONG
LocationUNCPath TEXT(254)
LocationName TEXT(30)
LocationDescription MEMO
LocationAutoCompress TEXT(1)
LocationOrder LONG
EnterBy TEXT(16)
EnterDate DATE
LastUpdateBy TEXT(16)
LastUpdateDate DATE

This table contains record entries for all of the locations (server paths) that are used within

dbo.SEAudit

AuditID LONG
AuditSys TEXT(30)
AuditEvent TEXT(30)
AuditBy TEXT(16)
AuditDateTime DATE
AuditText TEXT(255)

This table contains record entries for suditable events that are captured within the system. Reports are written to review this information. An example is the "Login' attempts andor the actualization attempts (by piperfield). dbo.SEMessages

(CodeType=CodeType)

MessagesSubsystem TEXT(10)
MessagesID LONG
MessageSType TEXT(10)
MessageDescription MEMO
EnterBy TEXT(16)
EnterDate DATE
LastUpdateBy TEXT(16)
LastUpdateDate DATE

This table contains record entries for all of the application messages (error, confirmational, informational, etc.).

dbo.SElmages

ImageType TEXT(12)
ImageKey TEXT(16)
ImageScreen MEMO
ImageShortDescription TEXT(60)
ImageDescription MEMO
CreateDate DATE
CreateUser TEXT(16)
LastUpdateDate DATE
LastUpdateUser TEXT(16)

This table contains record entries for all standard-system graphic images. Letterhee logos, screen graphic logos, etc.

FIG. 3H

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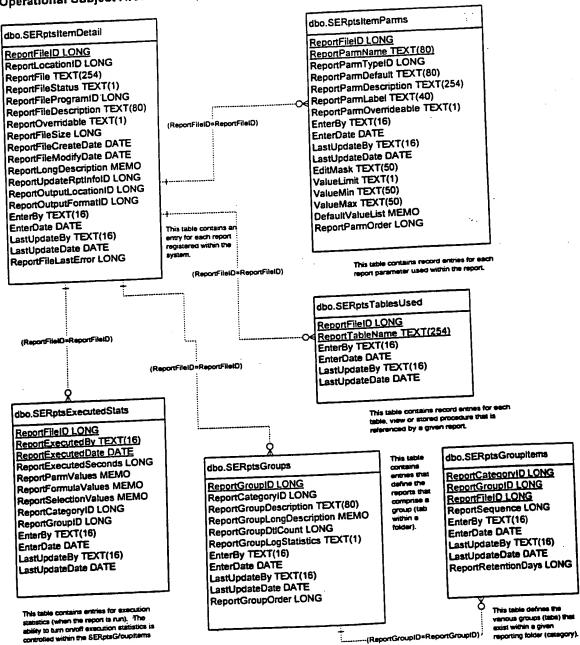


FIG. 3I

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## Operational Subject Area - 4 of 4 (ERD)

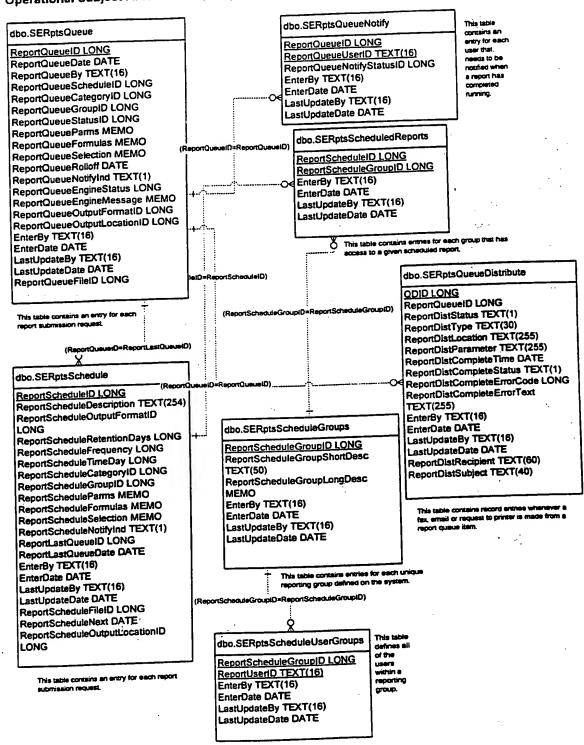


FIG. 3J

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Pipes & Meters Subject Area (ERD)

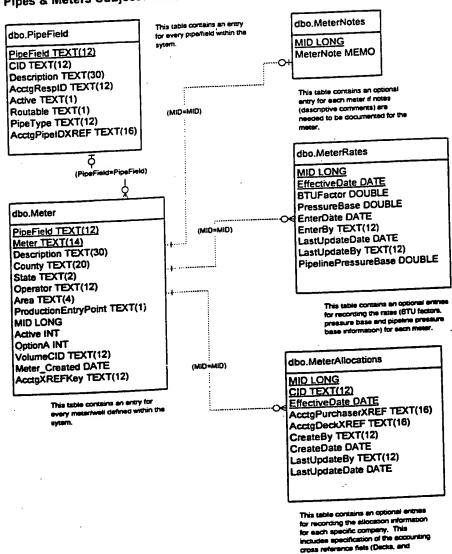


FIG. 3K

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### Pricing Subject Area (ERD)

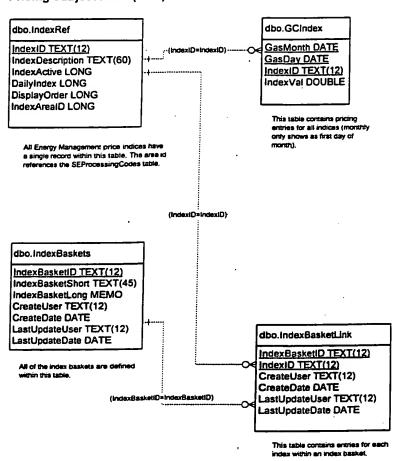


FIG. 3L

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### R uting Subject Ar a (ERD)

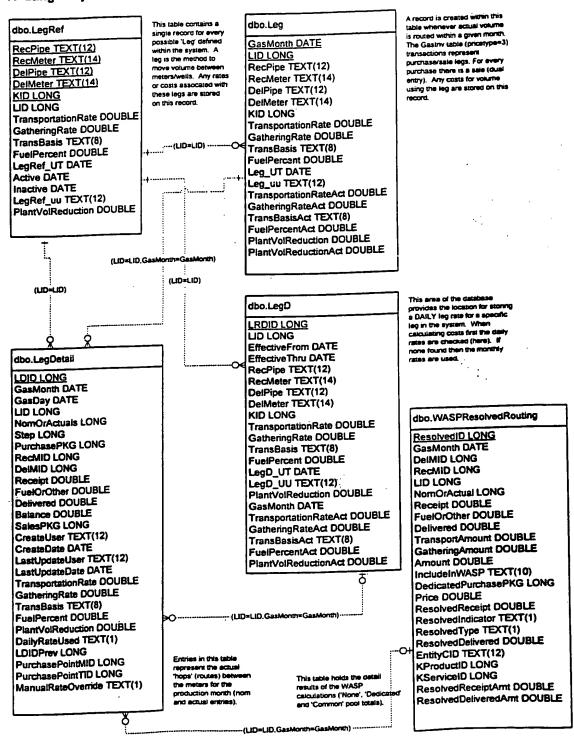


FIG. 3M

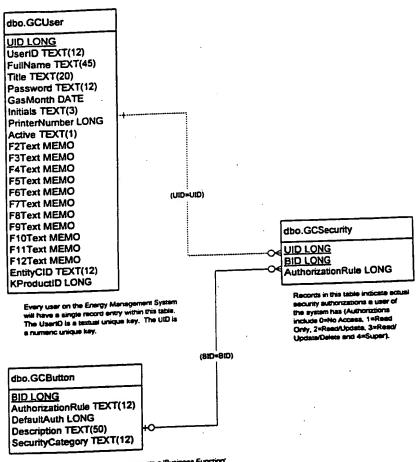
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### Security Subject Area (ERD)



Each record within this table represents a Business Function within the Energy Management System. These records are used to establish security on the system. Each entry is categorized as either for 'Employee' or 'Company

FIG. 3N

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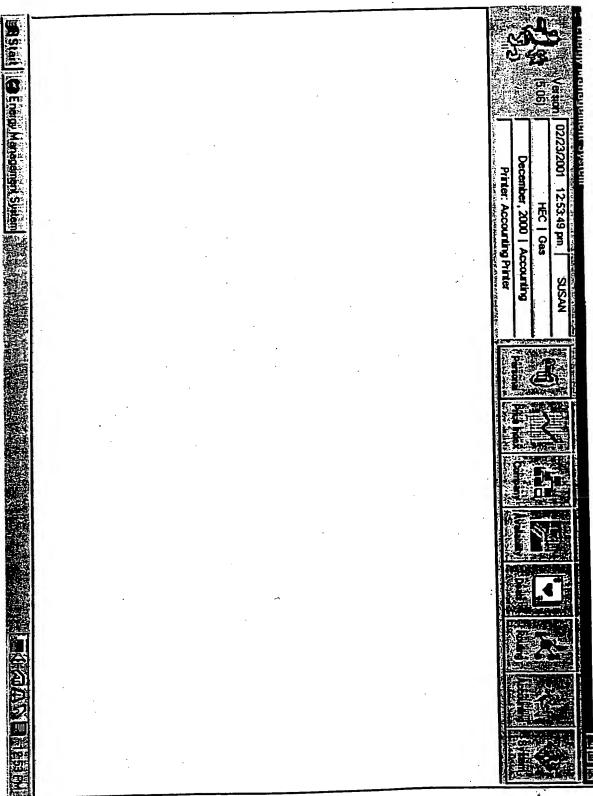
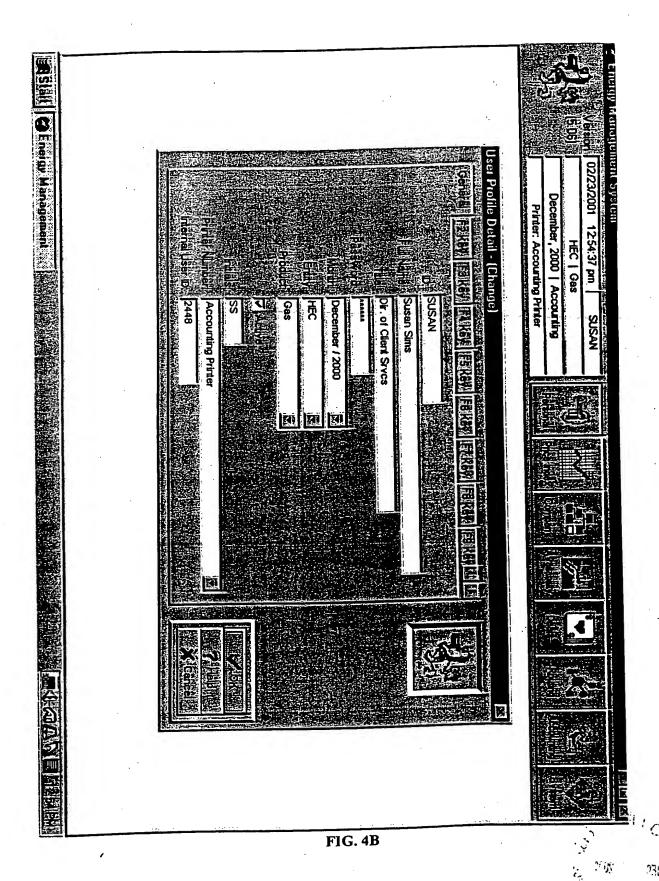
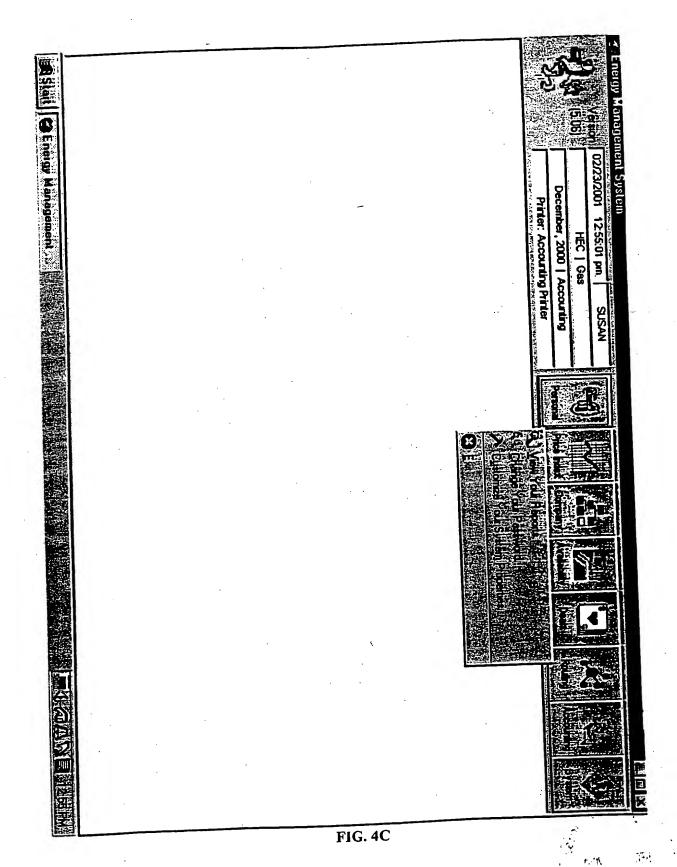


FIG. 4A

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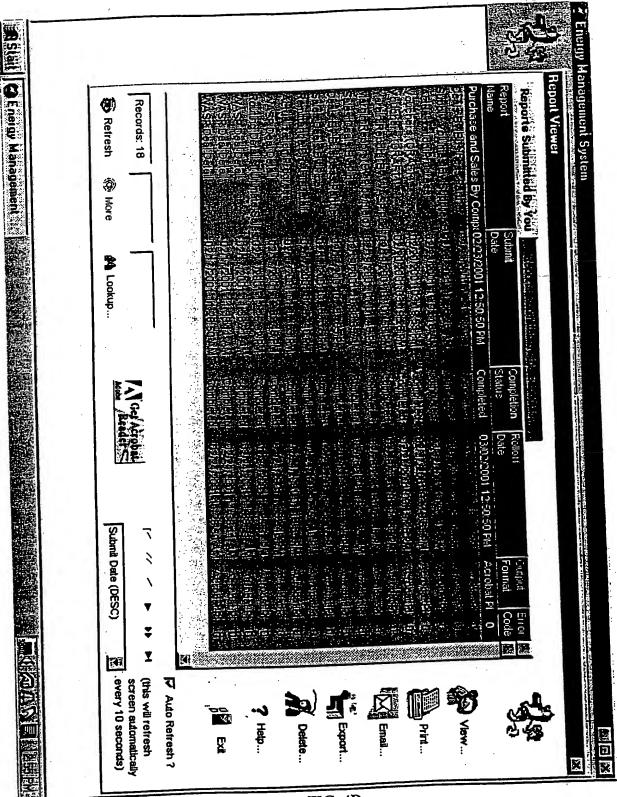


FIG. 4D

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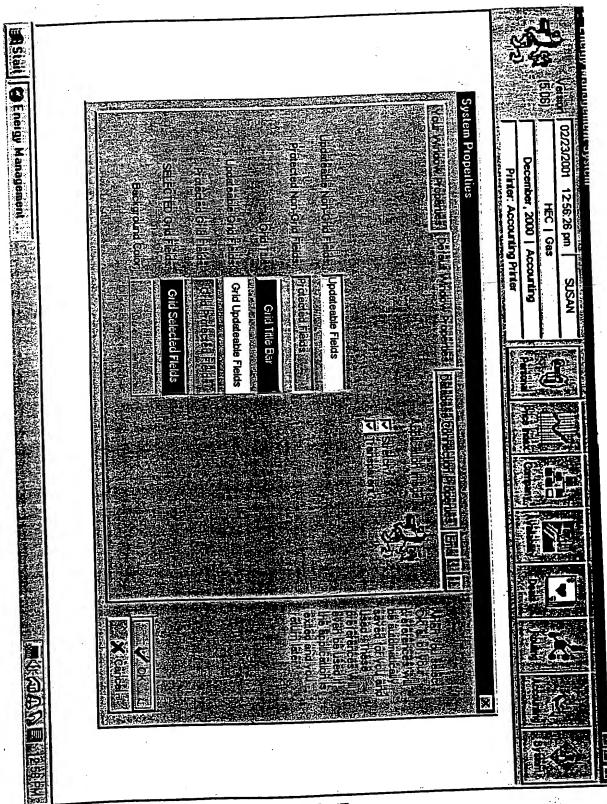


FIG. 4E

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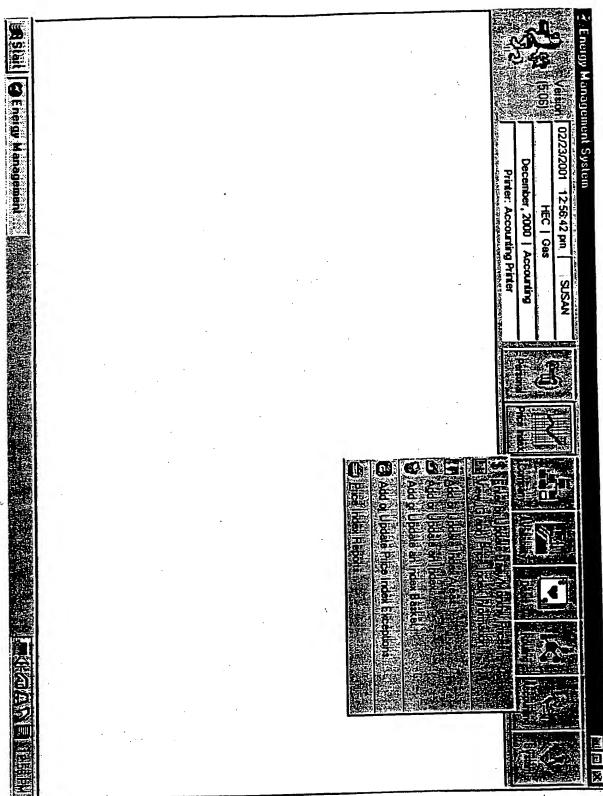


FIG. 4F

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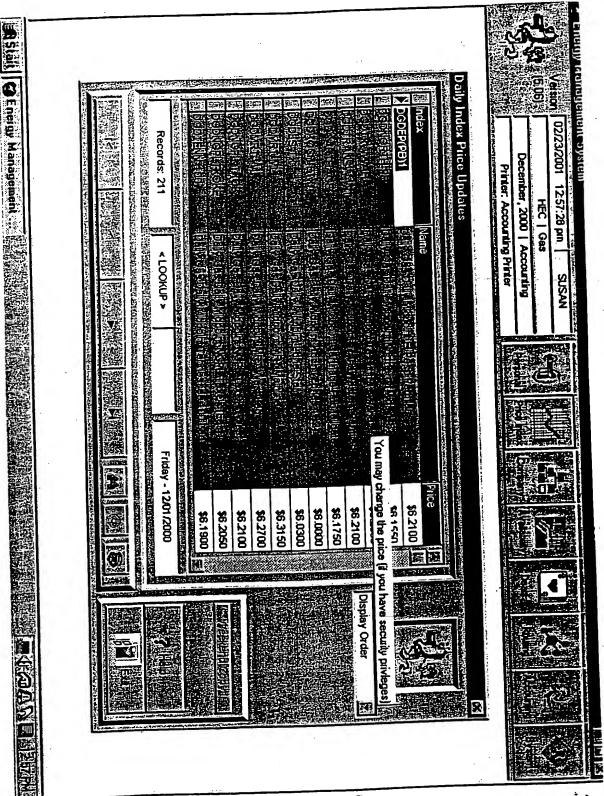
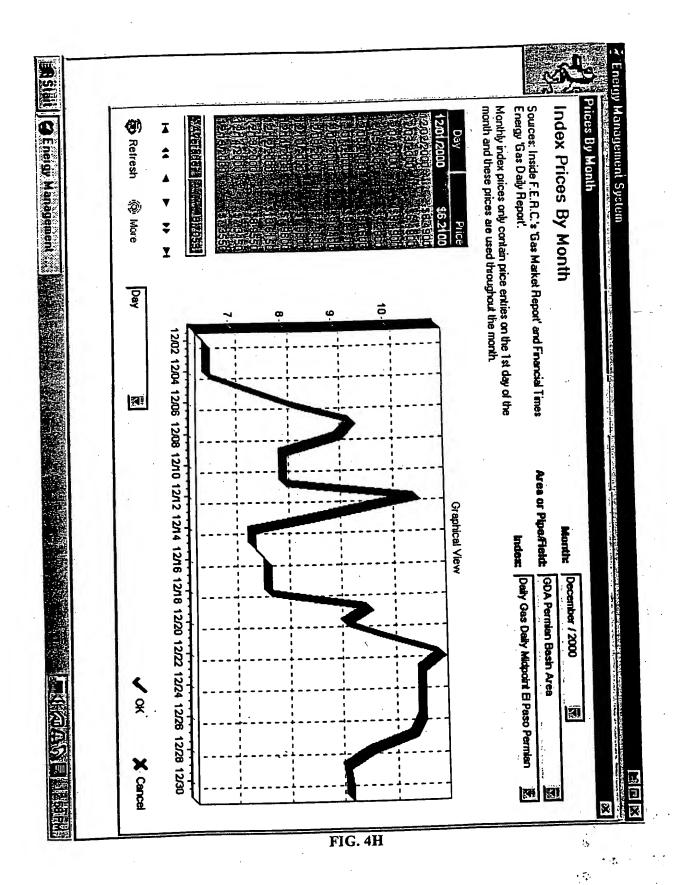


FIG. 4G

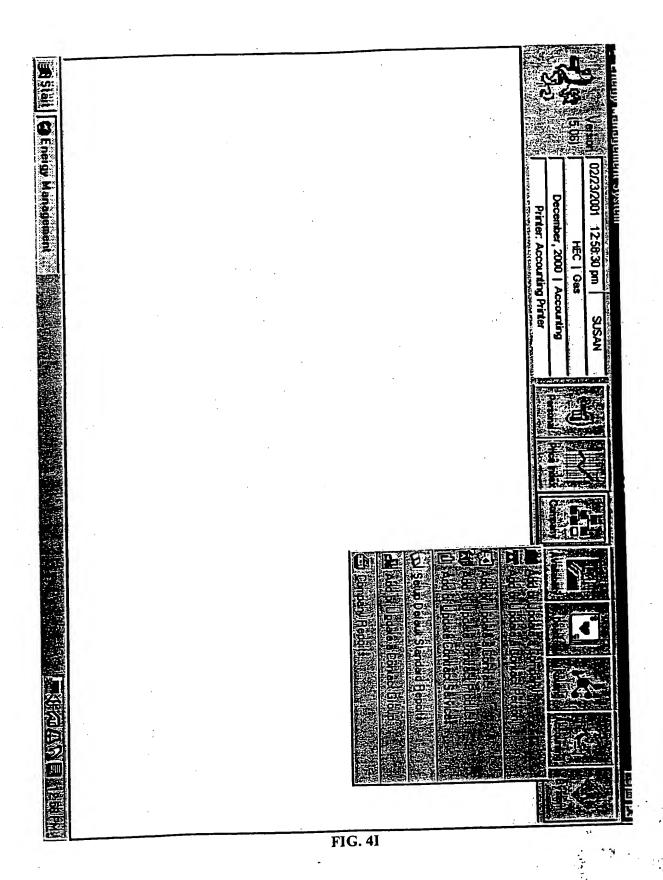
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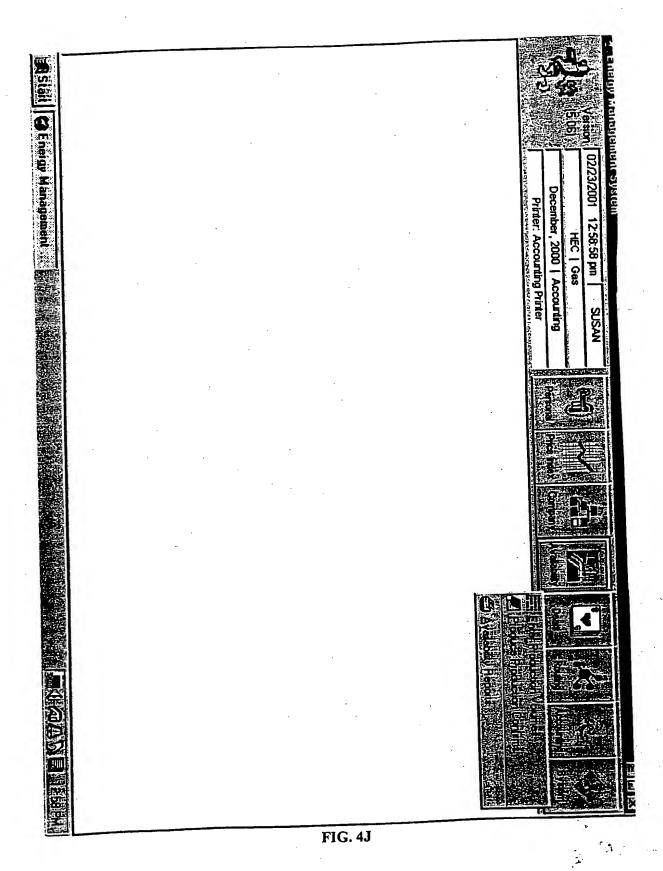
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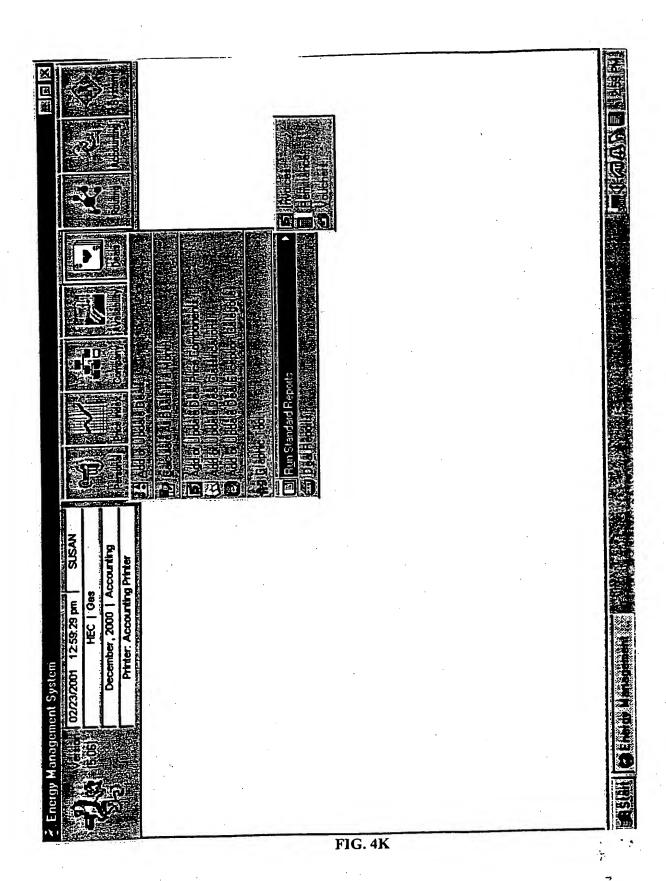


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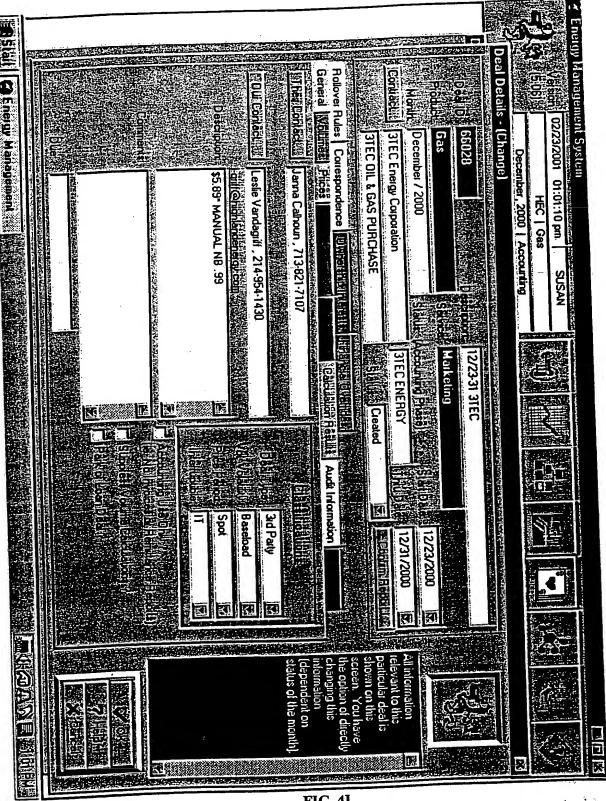
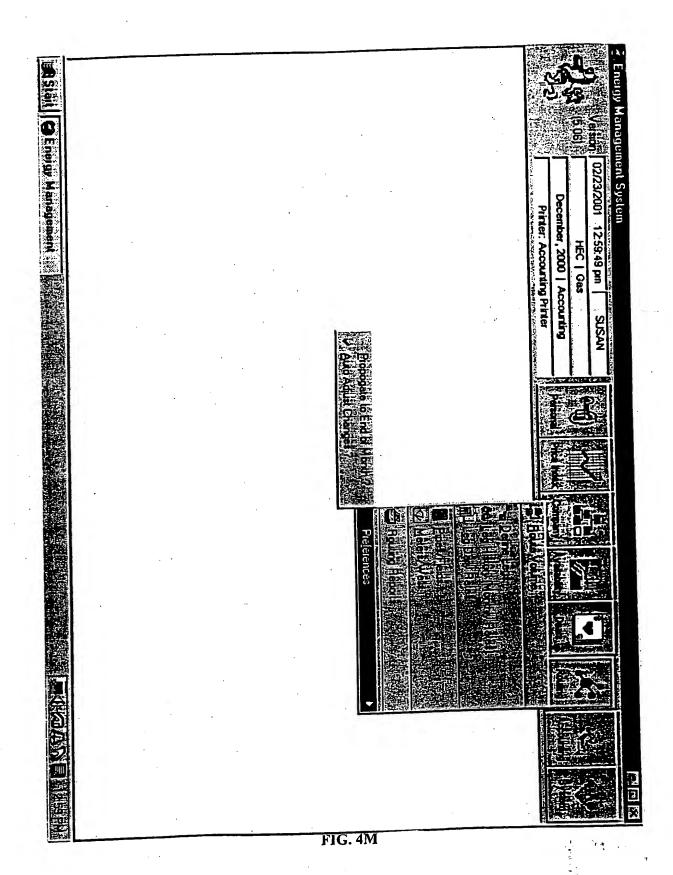


FIG. 4L

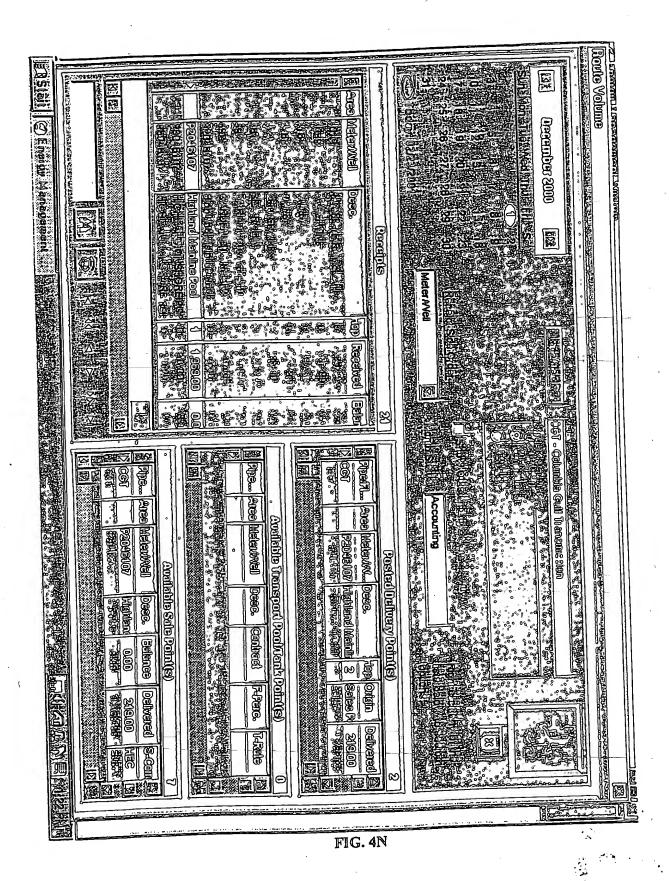
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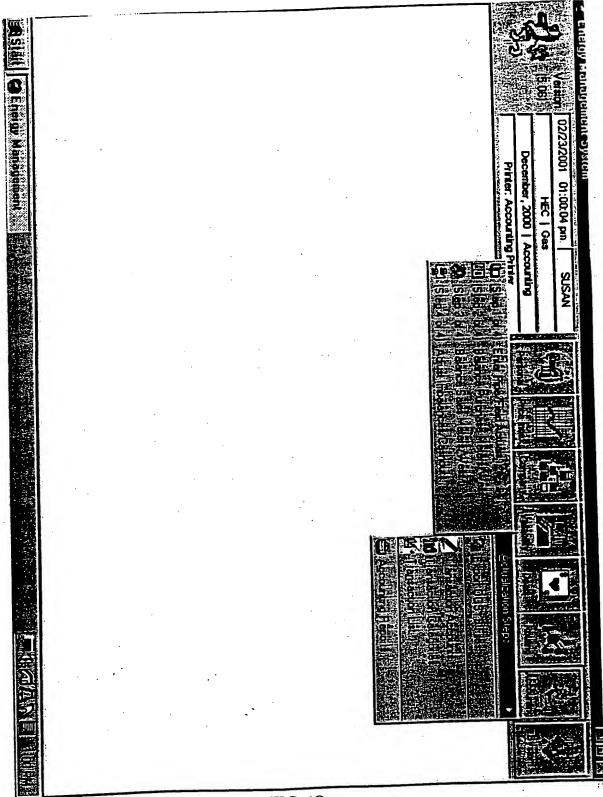
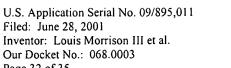
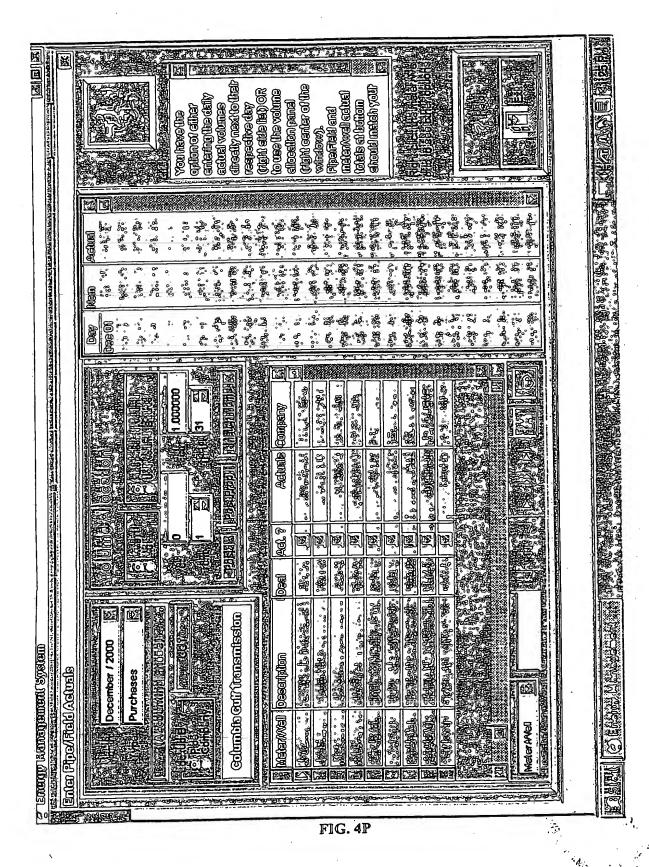


FIG. 40

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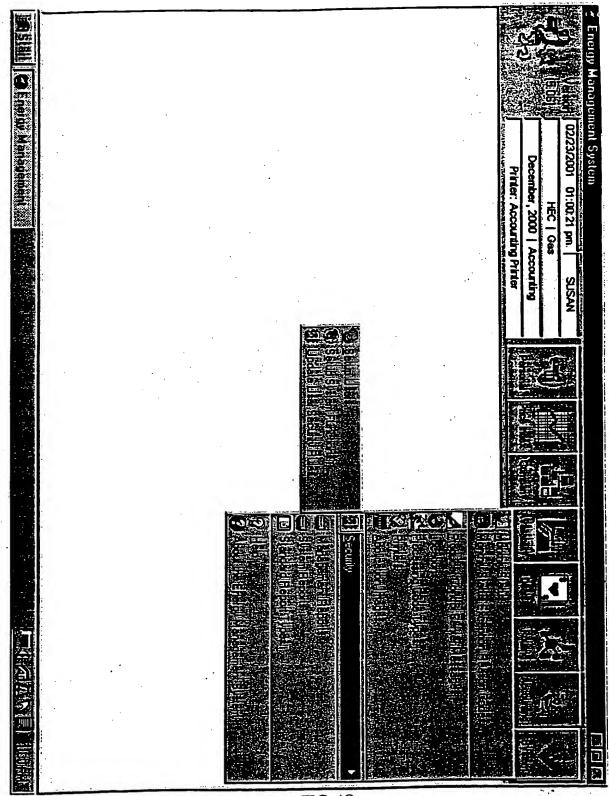


FIG. 4Q

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### **WASP Calculation Diagram**

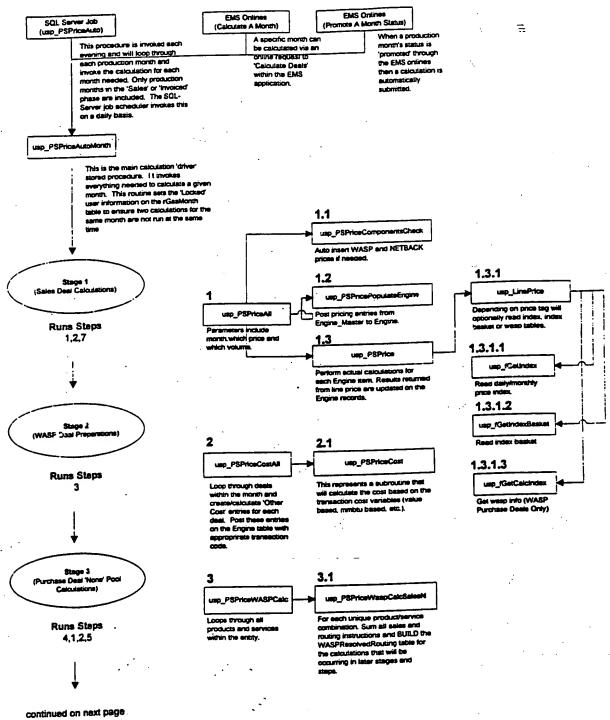


FIG. 5A

usp\_PSPriceWaspCalcResolveN

usp\_PSPriceWaspCalcResotveSalesN

HIGHLY ITERATIVE process that stempts to track all sales meters back to original purchase meters. The WASPResolvedRouting table is the primary table utilized here.

4.1.1

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### WASP Calculation Diagram (2 of 2)

continued from previous page usp\_PSPriceWaspCalcResolveDriver This procedure will loop through each product and service and invoke the resolve routines for each unique Stage 4 se Deal 'Dedicated' Pool Calculations) combination. process which loops back from all the sales points to originating purchase Runs Steps 4,1,2 usp\_PSPriceWASPDivieOutProce Stage 5 se Deal 'Comm Calculations) Move any of the financial proceeds that were overridden to their respective deal OR WASP meters. This takes the profit or (loss) and makes the adjustments Only 3rd party deals can have their proceeds 'divied'. The primary table updated through this process is the WASPResolvedRouting table. Runs Steps 4,1,2 usp\_PSPriceTransportAll Stage 6 (Transportation Cost Calculations) This routine will create all of the Gastrov This routine will create all of the Casariv 'PriceType=3' inventory records and associated Engine (calculated) results. These system generated transport costs include transport, gathering, fuel and pvr. **Runs Steps** 6 usp\_PSPriceAnyNewInvoicesNeeded This routine only gets executed if the production month status is set to "Invoiced." This routine will ensure that an invoice number gets assigned if no number currently exists (for new sales.

FIG. 5B

entries introduced during the actualization phase).